

Supporting Information

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Synthesis of a Glucuronic Acid-Containing Thioglycoside Trisaccharide Building Block and Its Use in the Assembly of *Cryptococcus Neoformans* Capsular Polysaccharide Fragments**

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Supporting information

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Fig 1: ¹H NMR of **2** at 25 °C

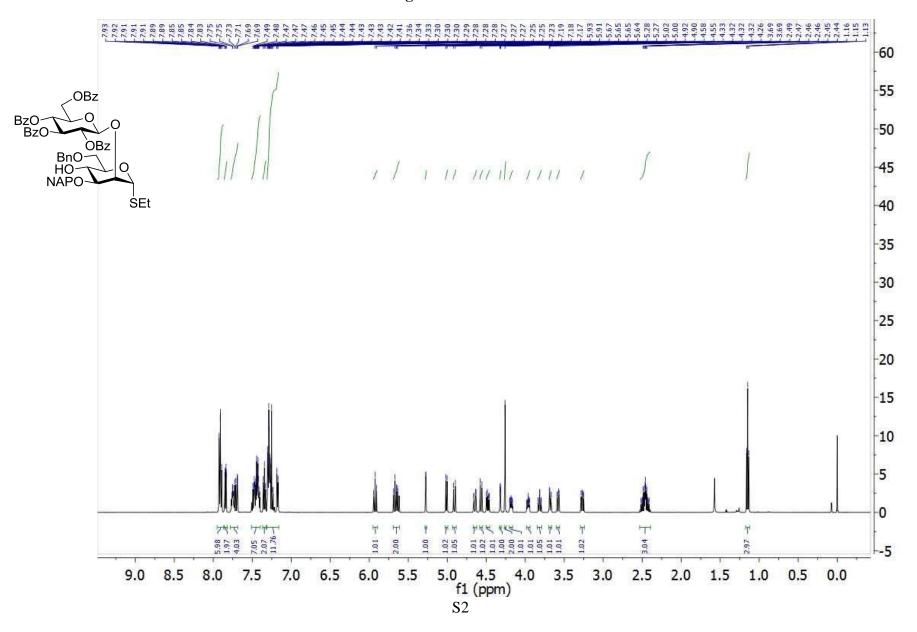


Fig 2: ¹³C NMR of **2** at 25 °C

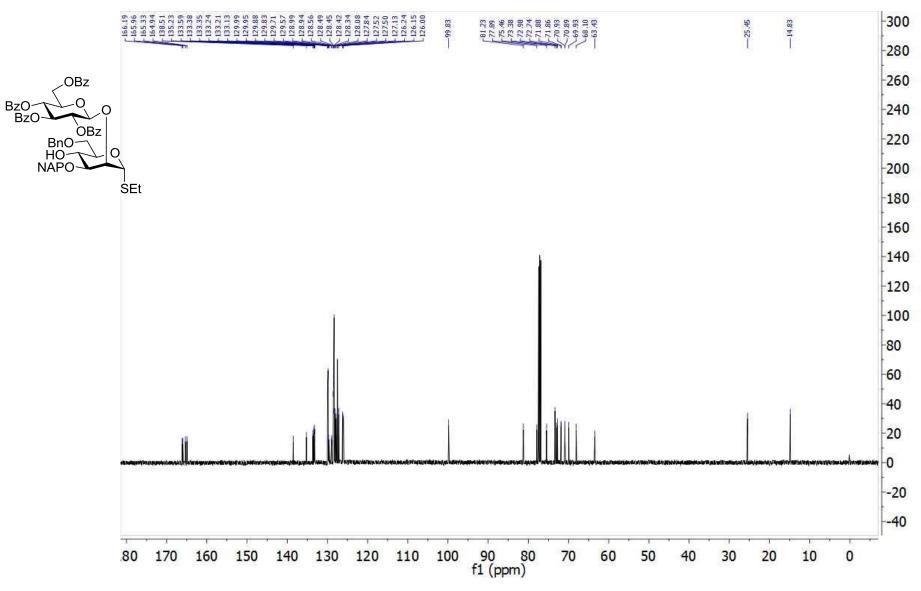


Fig 3: ¹H NMR of **4** at 25 °C

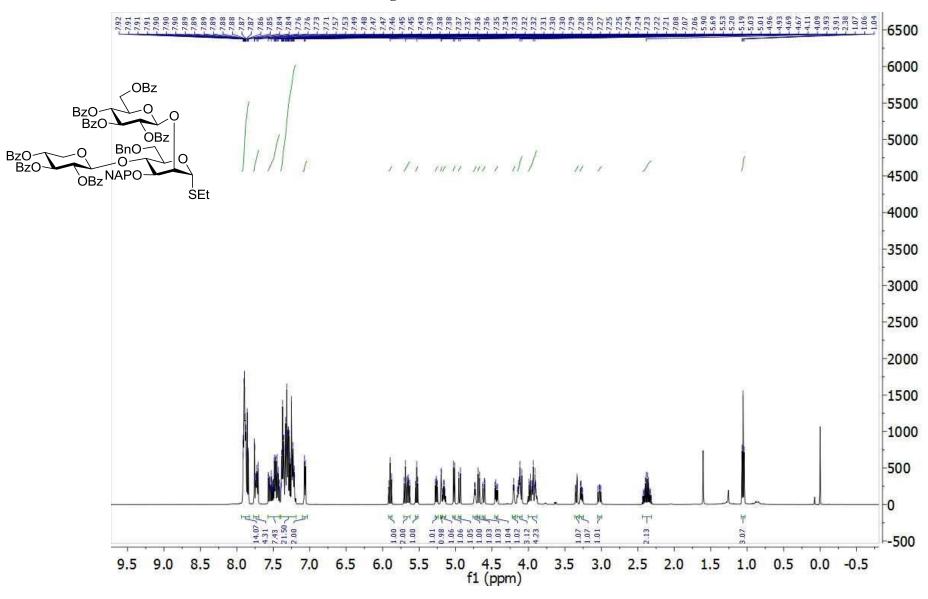


Fig 4: ¹³C NMR of **4** at 25 °C

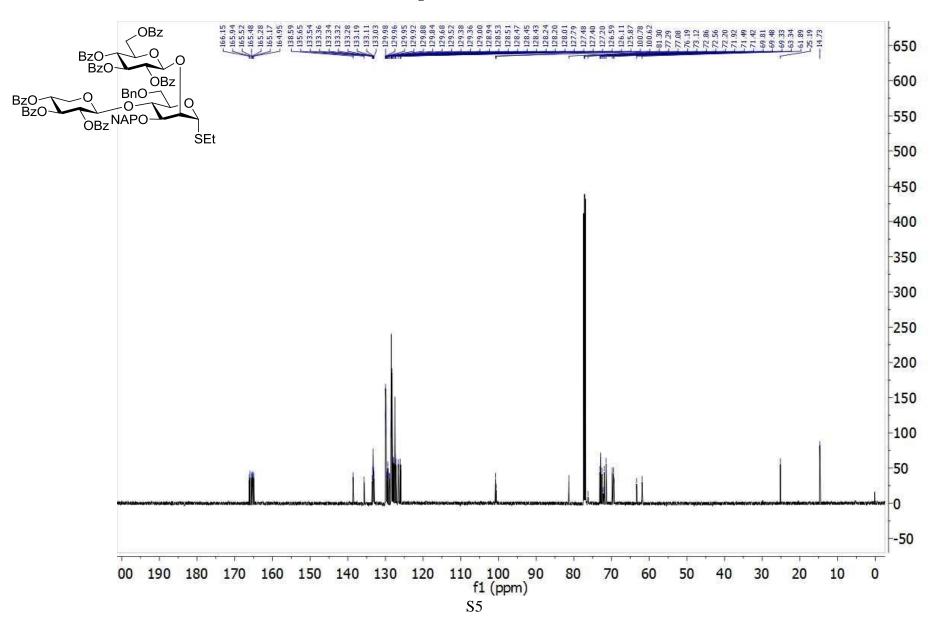


Fig 5: ¹H NMR of **5** at 25 °C

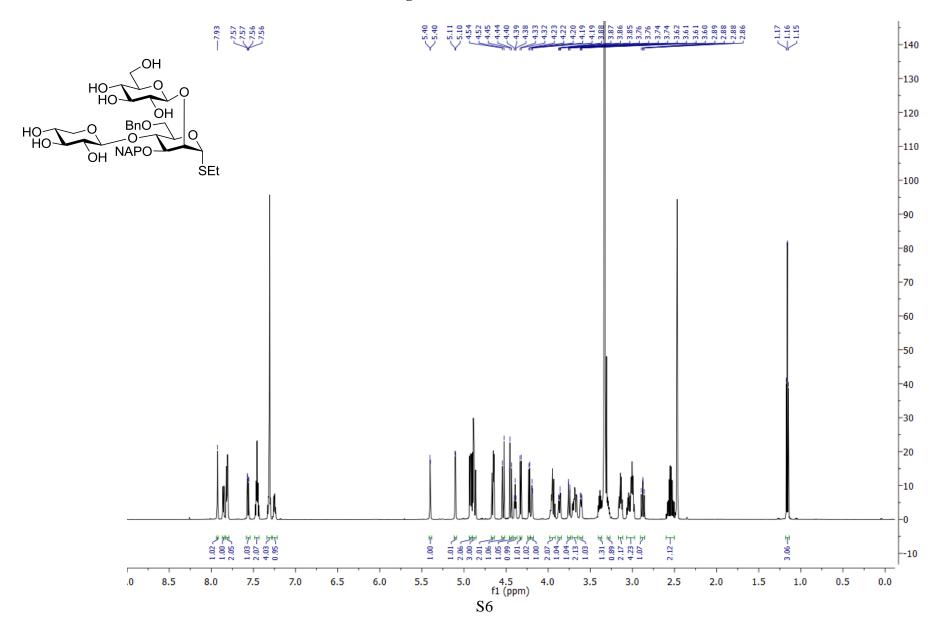
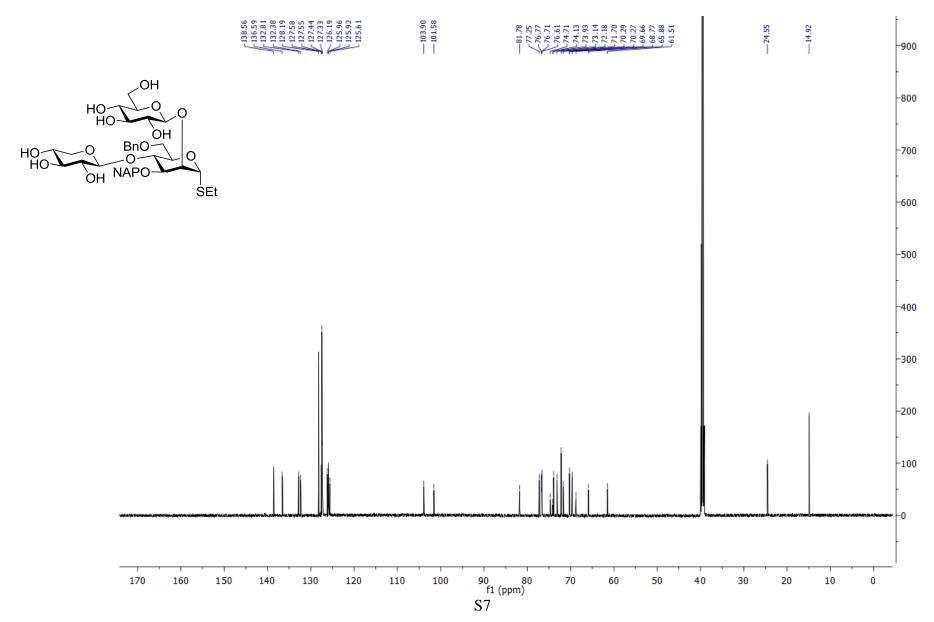


Fig 6: 13 C NMR of **5** at 25 $^{\circ}$ C



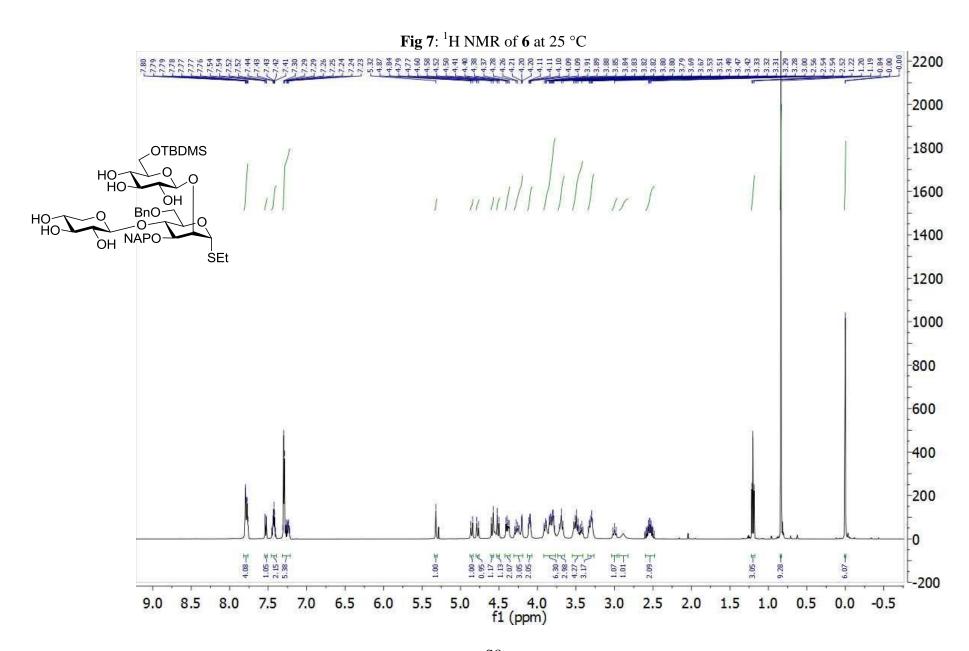
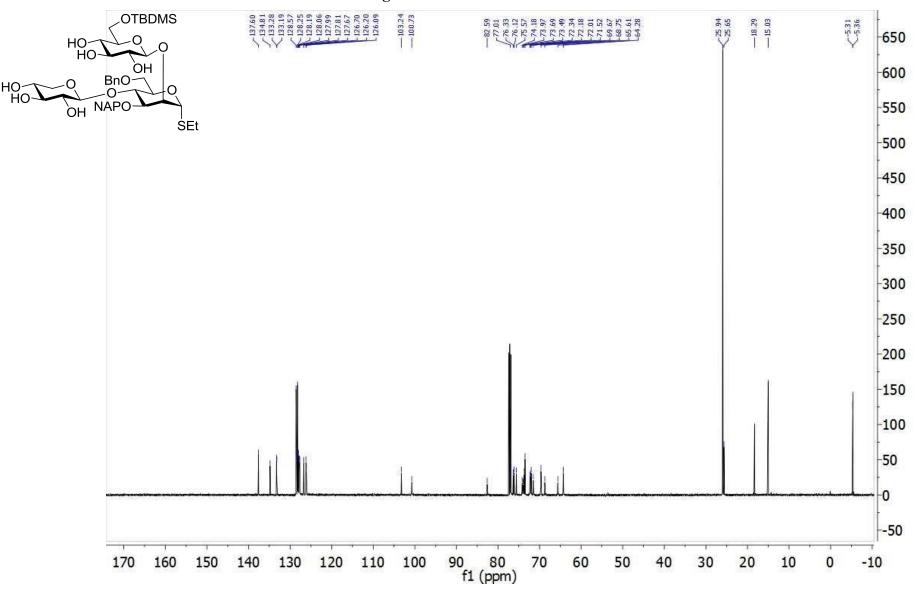


Fig 8: 13 C NMR of **6** at 25 $^{\circ}$ C



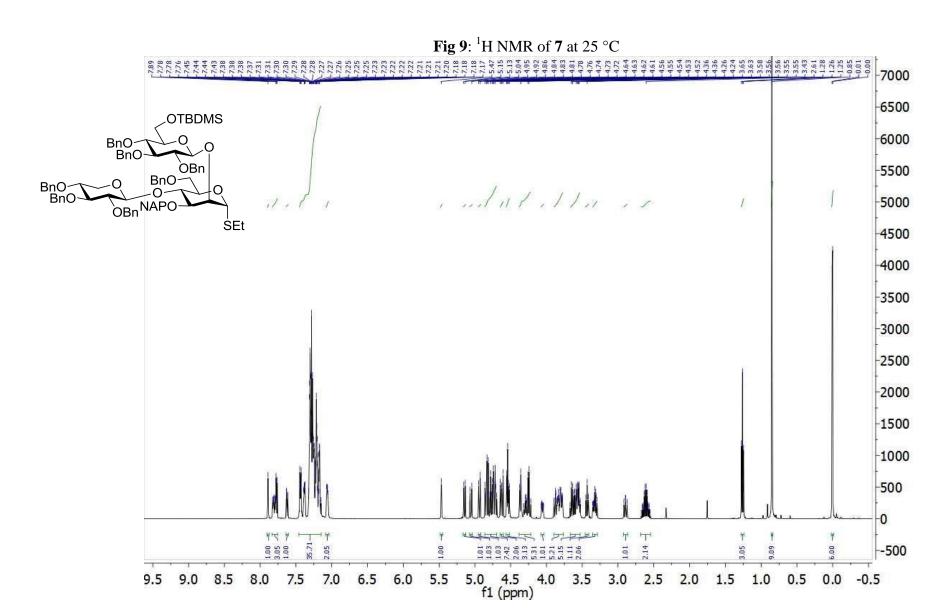


Fig 10: 13 C NMR of **7** at 25 $^{\circ}$ C

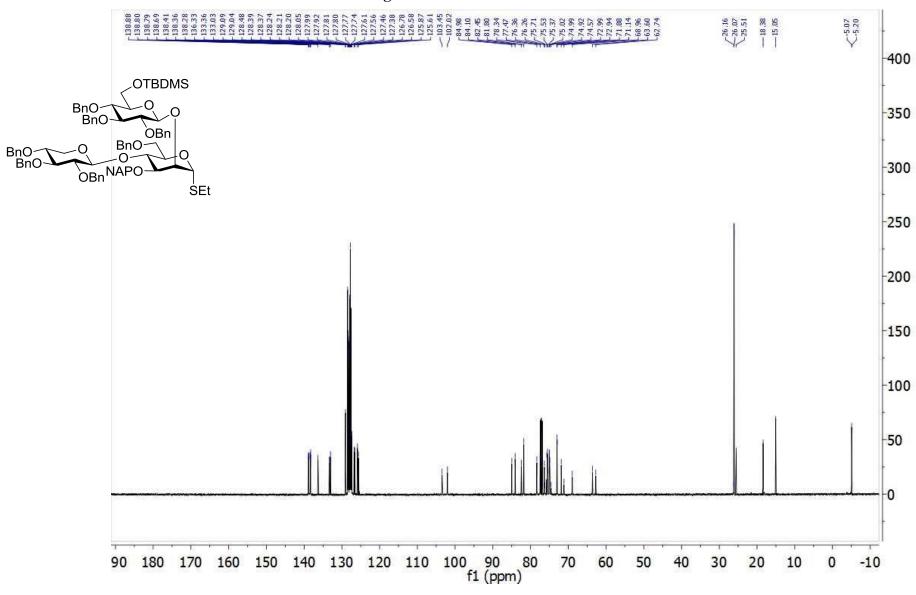


Fig 11: ¹H NMR of **8** at 25 °C

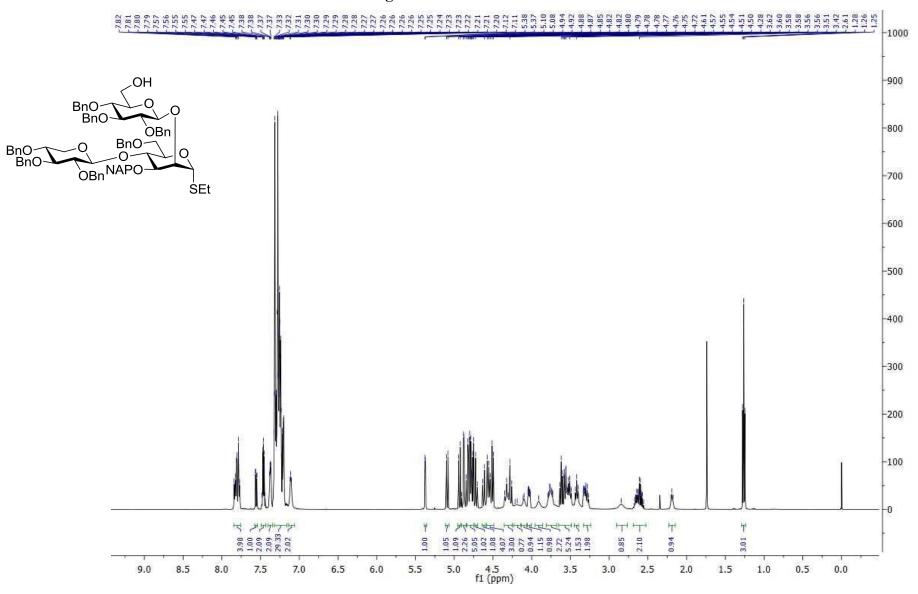


Fig 12: ¹H NMR of **8** at 50 °C

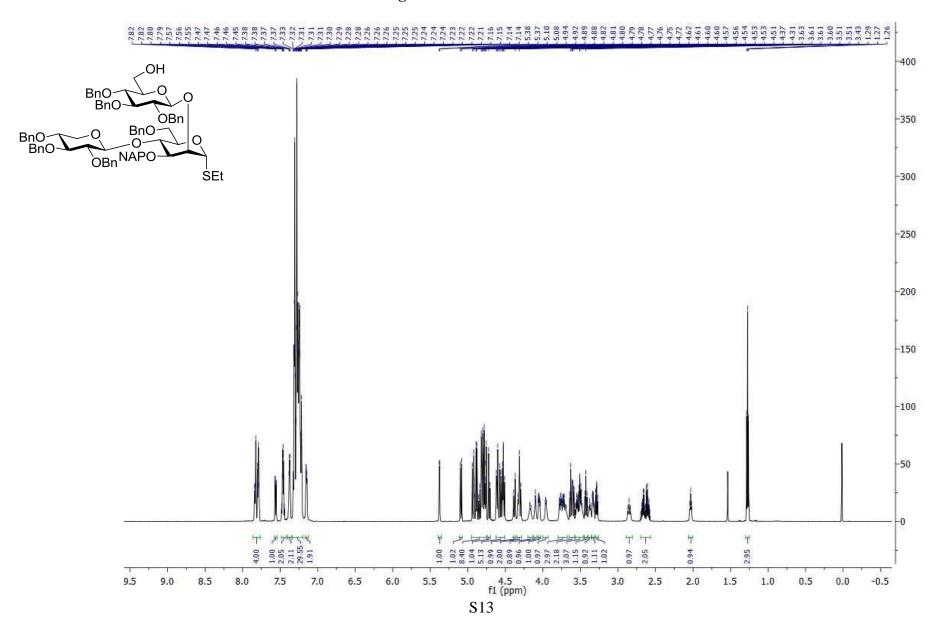


Fig 13: ¹³C NMR of **8** at 25 °C

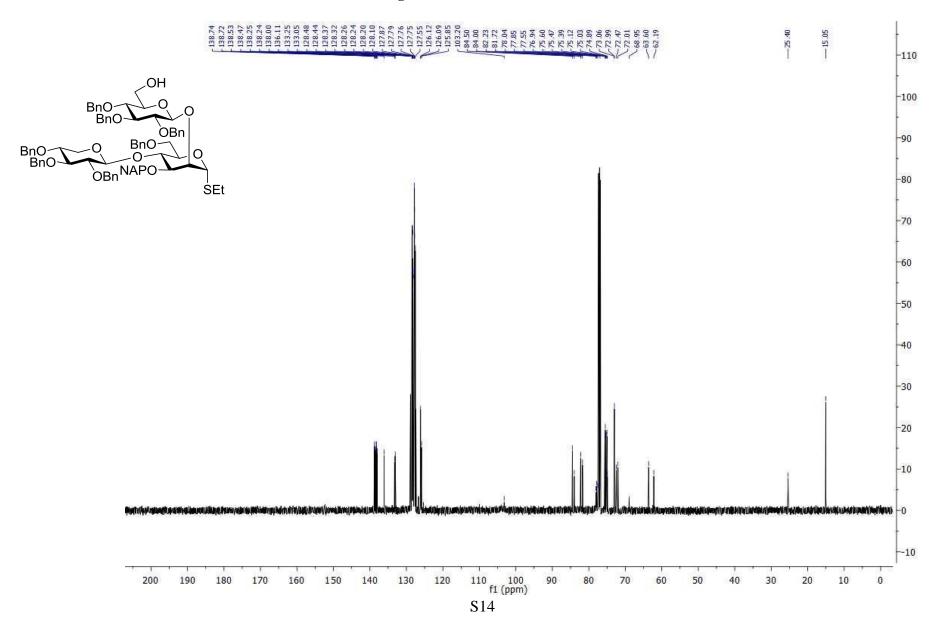
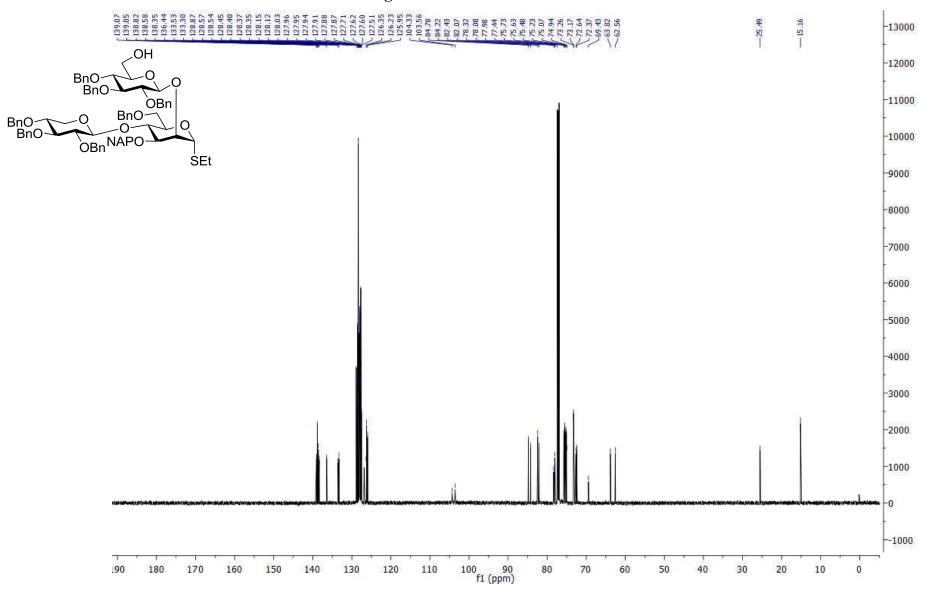


Fig 14: ¹³C NMR of **8** at 50 °C



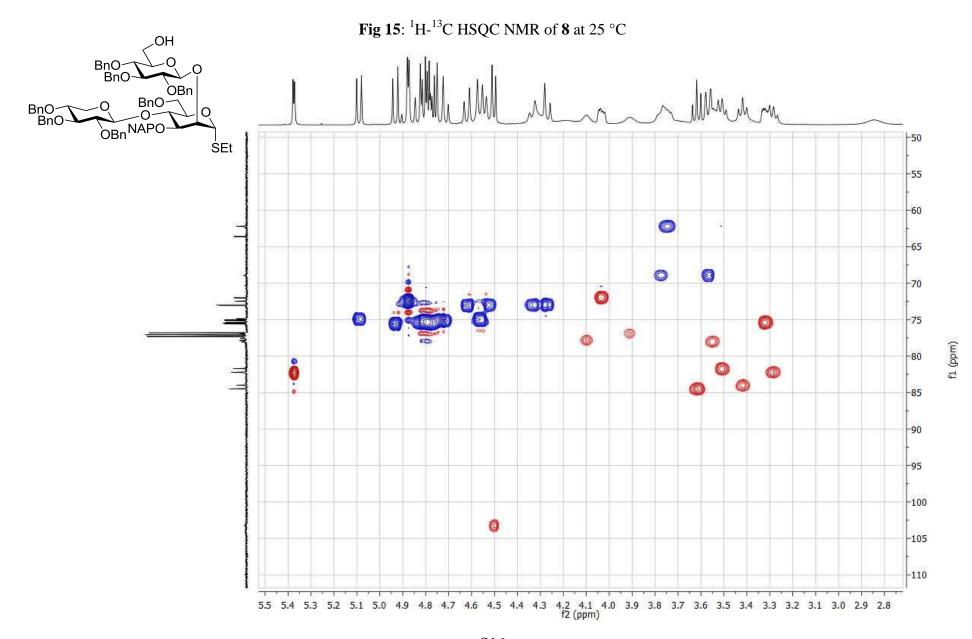


Fig 16: ${}^{1}\text{H-}{}^{13}\text{C}$ HSQC NMR of **8** at 50 ${}^{\circ}\text{C}$ OBn BnO SEt -55 -60 -65 -70 -75 -80 f1 (ppm) -85 -90 -95 -100 -105 -110 -115 $5.6 \ 5.5 \ 5.4 \ 5.3 \ 5.2 \ 5.1 \ 5.0 \ 4.9 \ 4.8 \ 4.7 \ 4.6 \ 4.5 \ 4.4 \ 4.3 \ 4.2 \ 4.1 \ 4.0 \ 3.9 \ 3.8 \ 3.7 \ 3.6 \ 3.5 \ 3.4 \ 3.3 \ 3.2 \ 3.1 \ 3.0 \ 2.9 \ 2.8 \ 2.7 \ f2 (ppm)$

S17

Fig 17: ¹H NMR of **9** at 25 °C

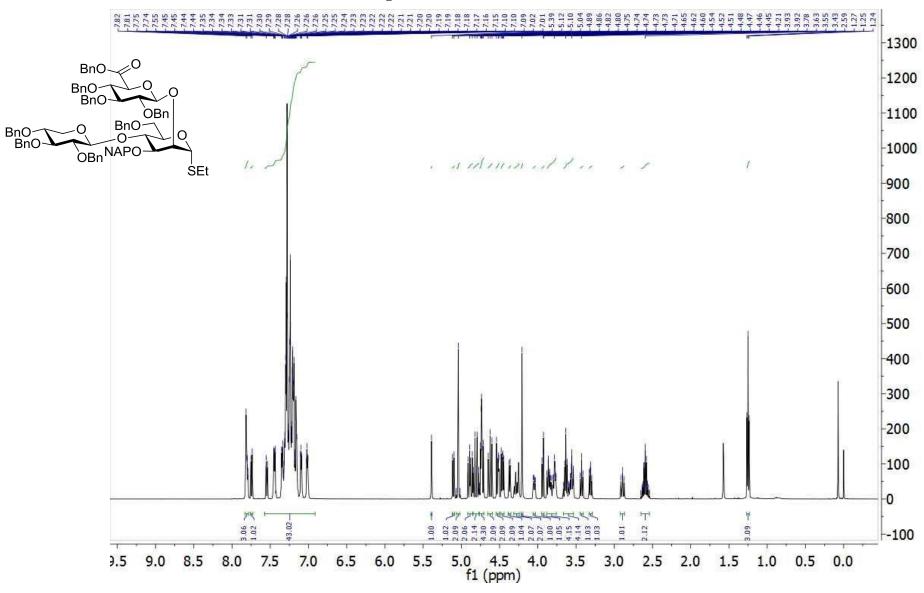


Fig 18: ¹³C NMR of **9** at 25 °C

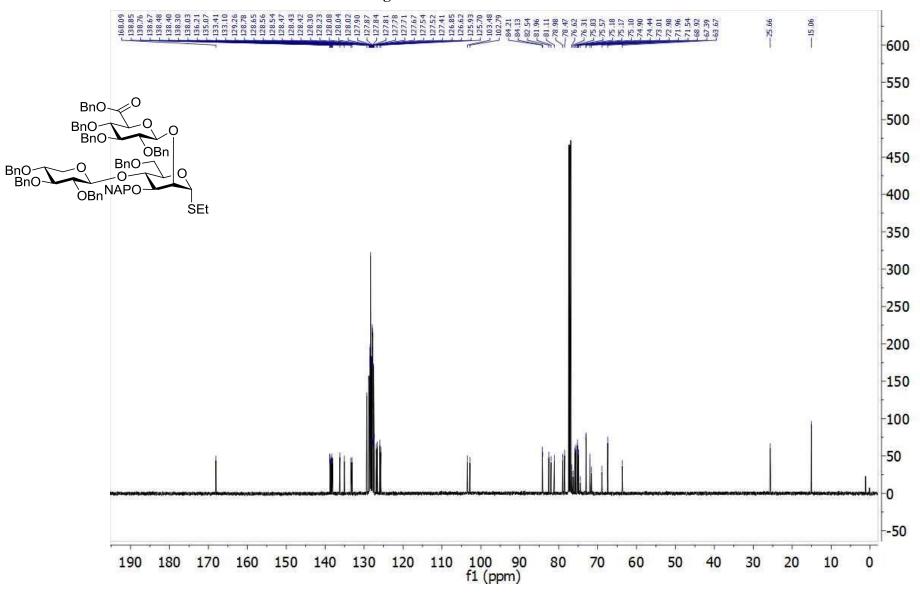


Fig 19: ¹H NMR of **11** at 25 °C

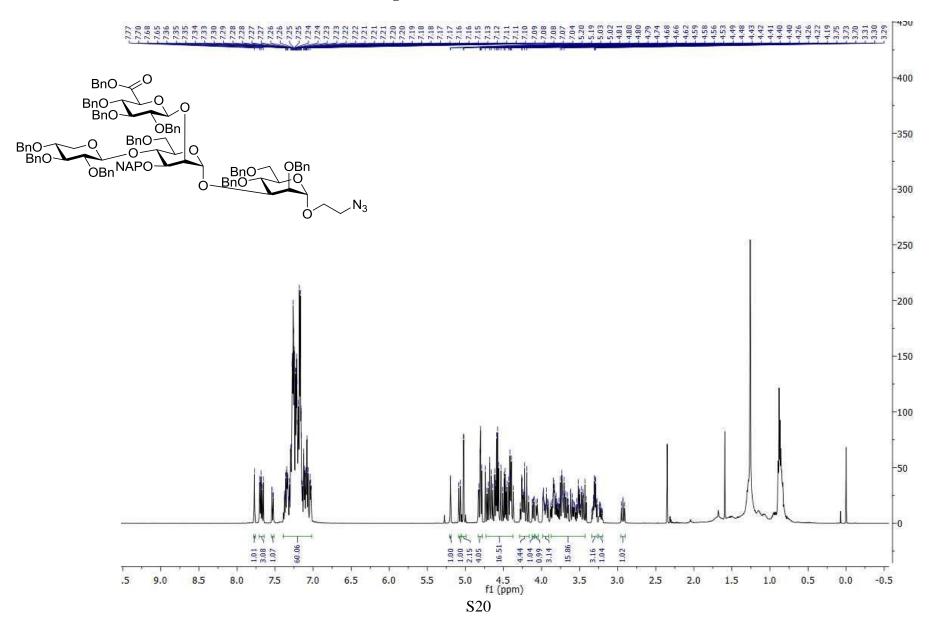


Fig 20: ¹³C NMR of **11** at 25 °C

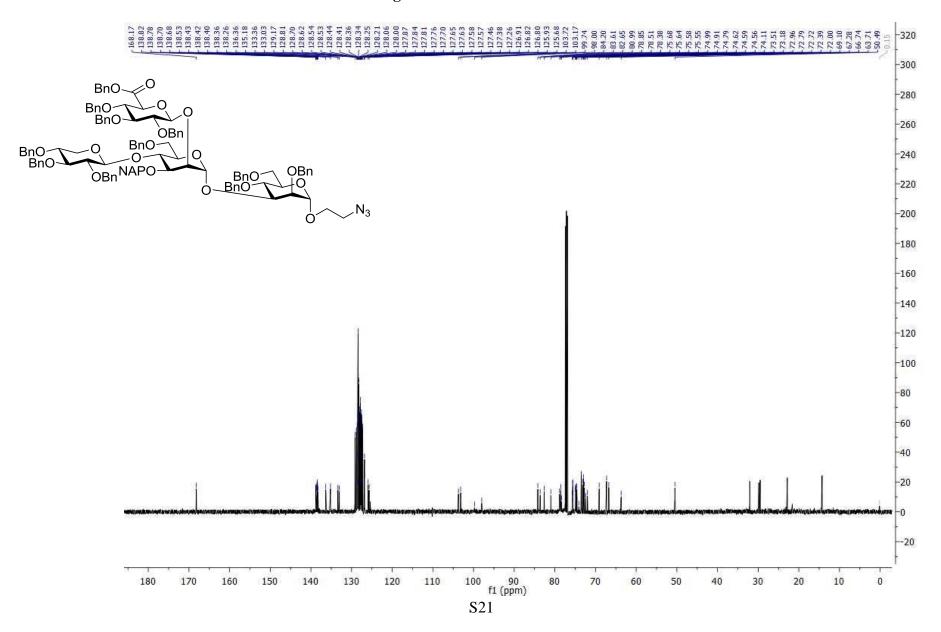
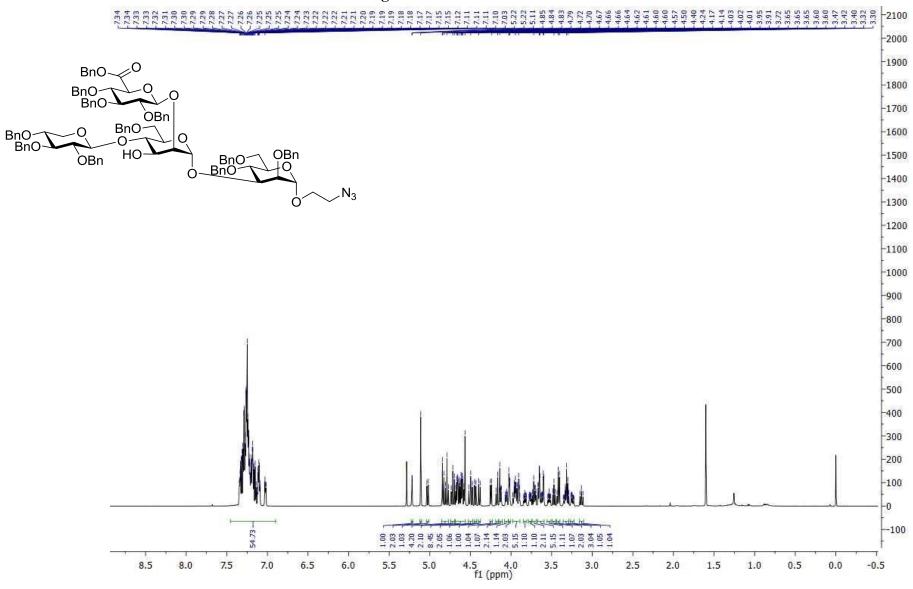


Fig 21: ¹H NMR of **12** at 25 °C



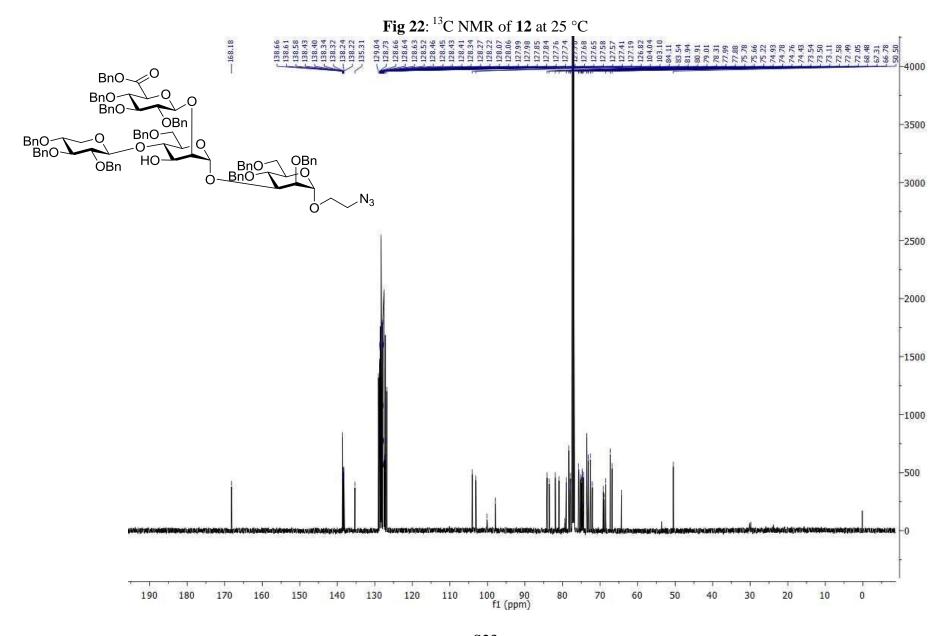
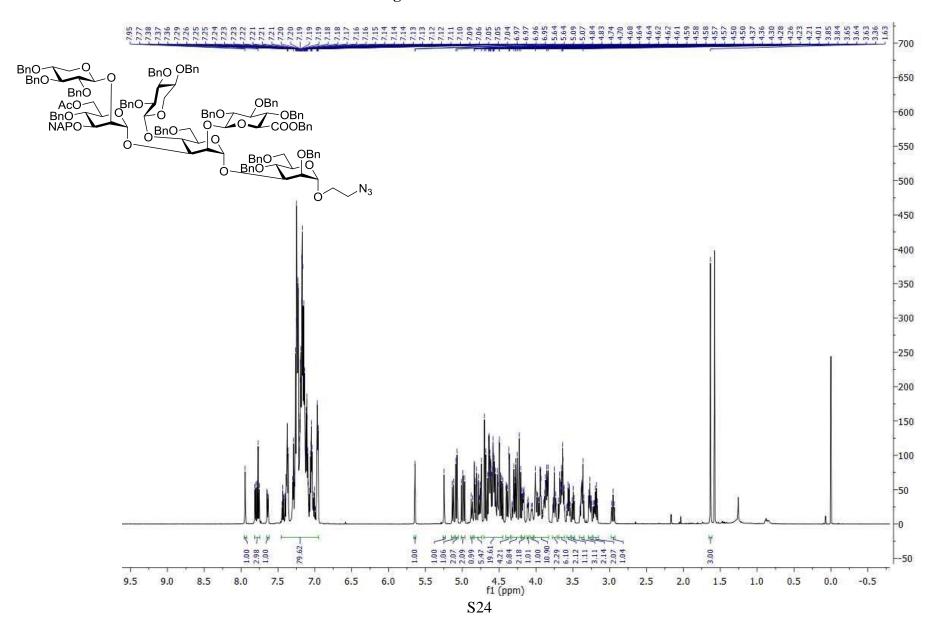


Fig 23: ¹H NMR of **14** at 25 °C



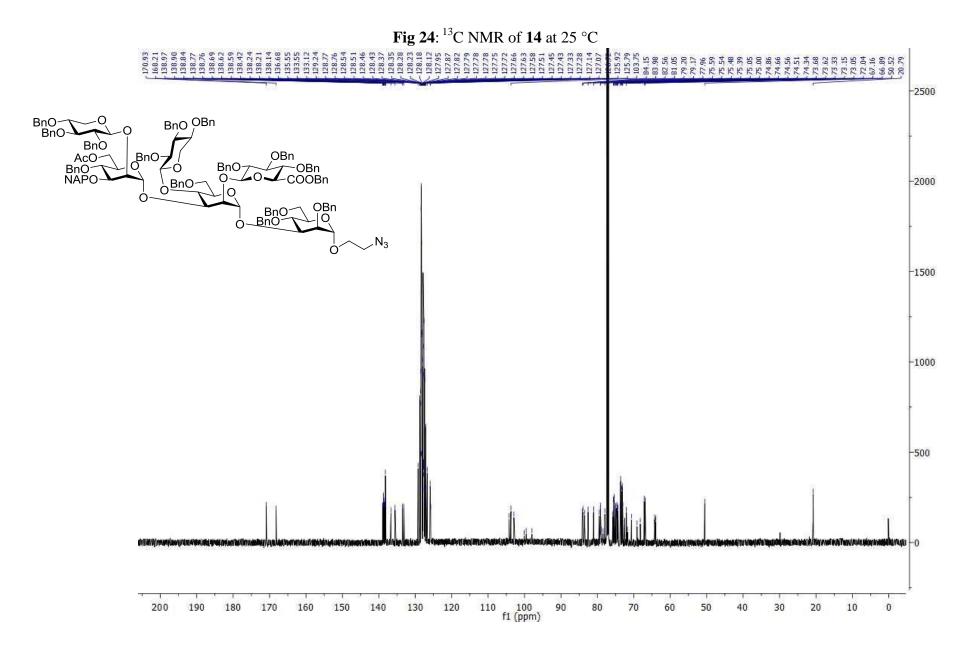


Fig 25: ¹H NMR of **15** at 25 °C

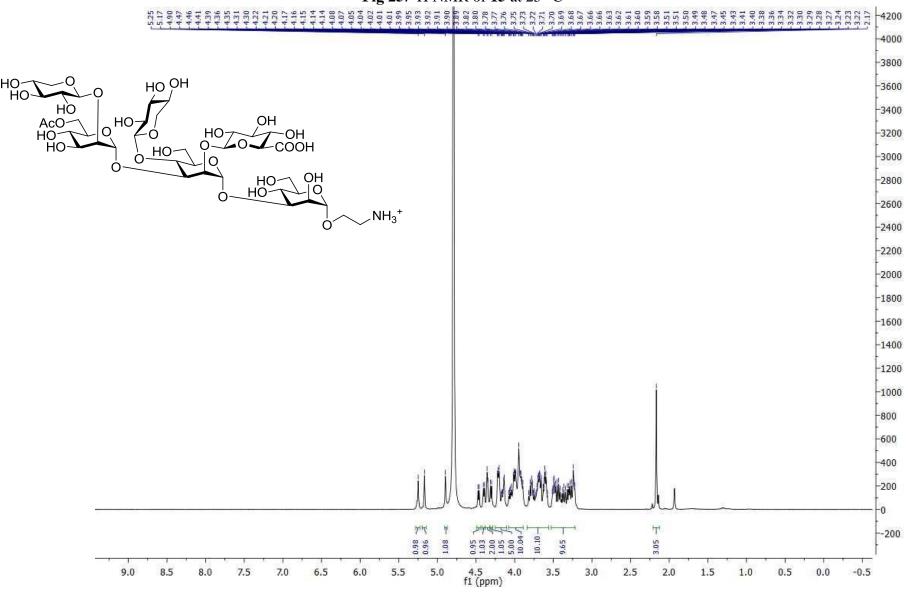


Fig 26: ¹H⁻¹³C HSQC NMR of **15** at 25 °C -10 -20 -30 -40 -50 -70 -80 -90 -100 -110 -120 -130 5.5 2.0 2.5 1.5 5.0 3.5 4.0 3.0 f2 (ppm) 1.0 4.5

S27

Fig 27: ¹H NMR of **17** at 25 °C

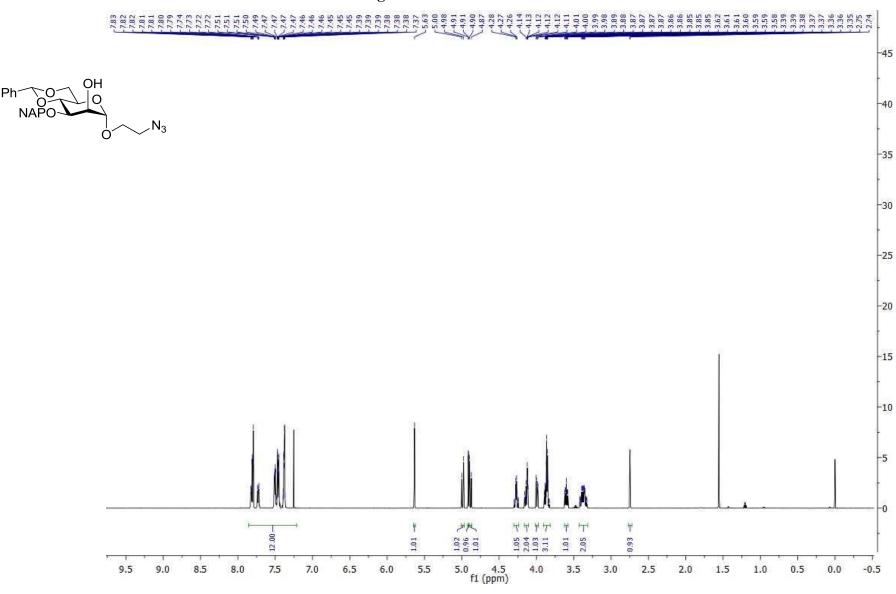
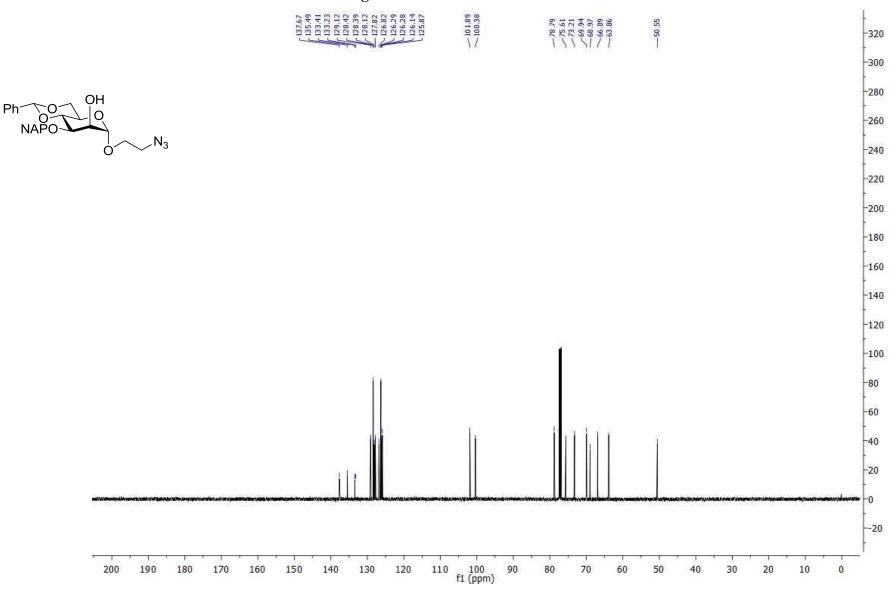


Fig 28: ¹³C NMR of **17** at 25 °C





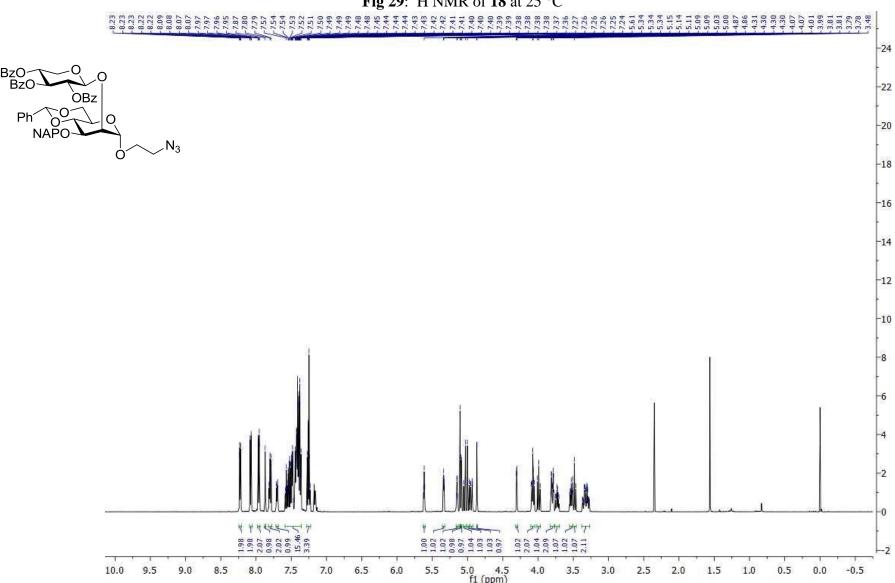
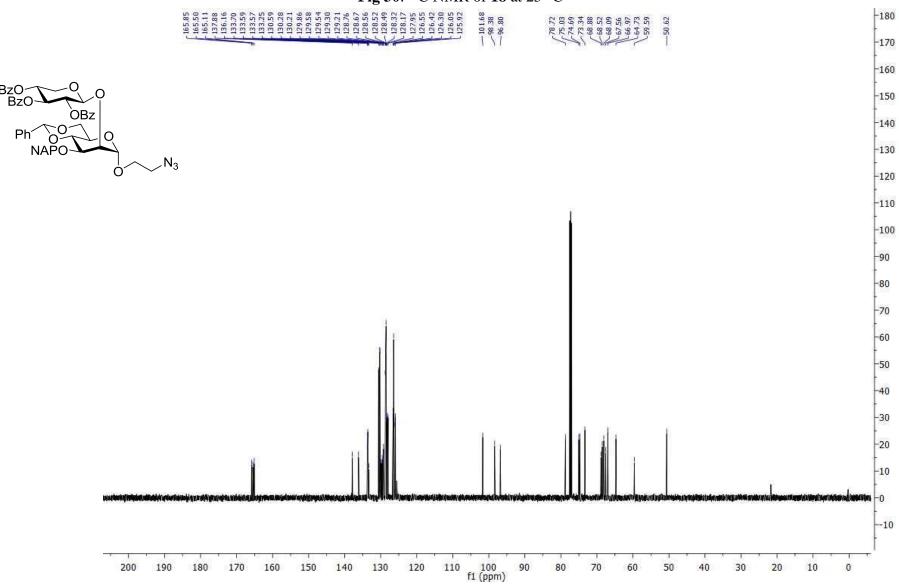


Fig 30: ¹³C NMR of **18** at 25 °C





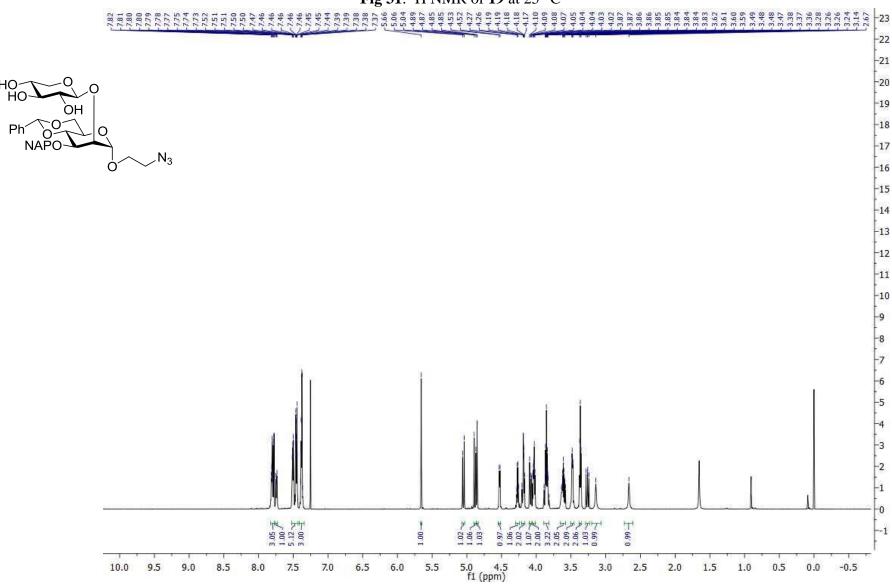


Fig 32: ¹³C NMR of **19** at 25 °C

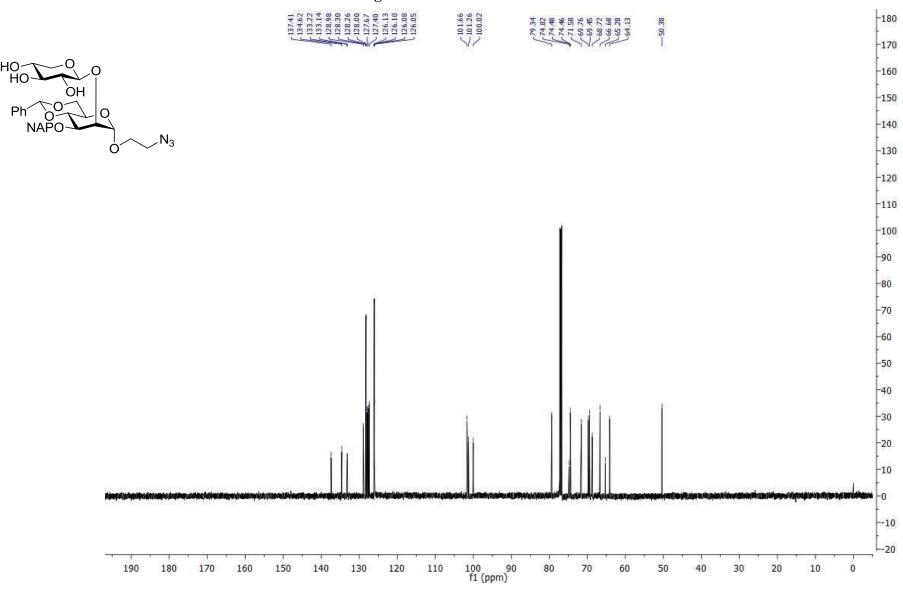


Fig 33: ¹H NMR of **20** at 25 °C

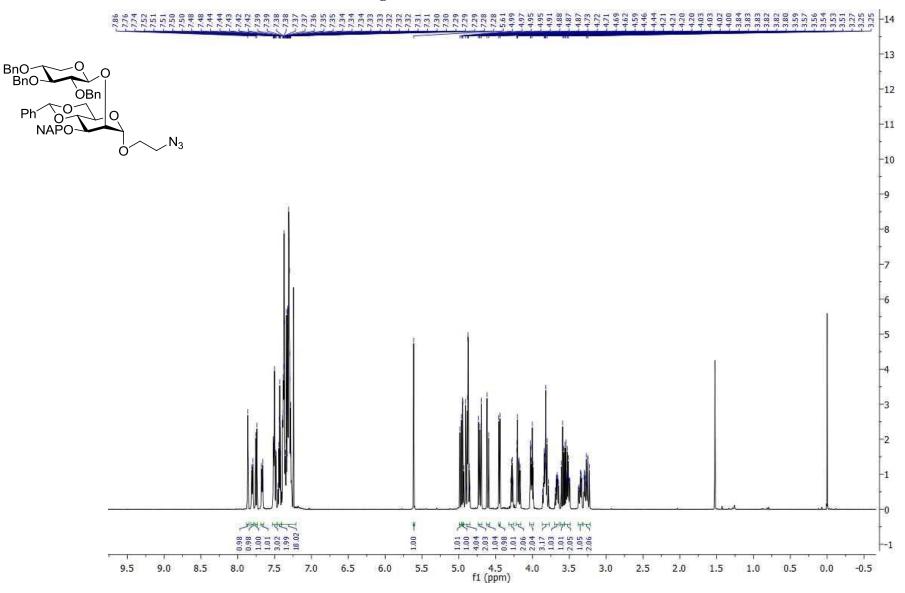


Fig 34: ¹³C NMR of **20** at 25 °C

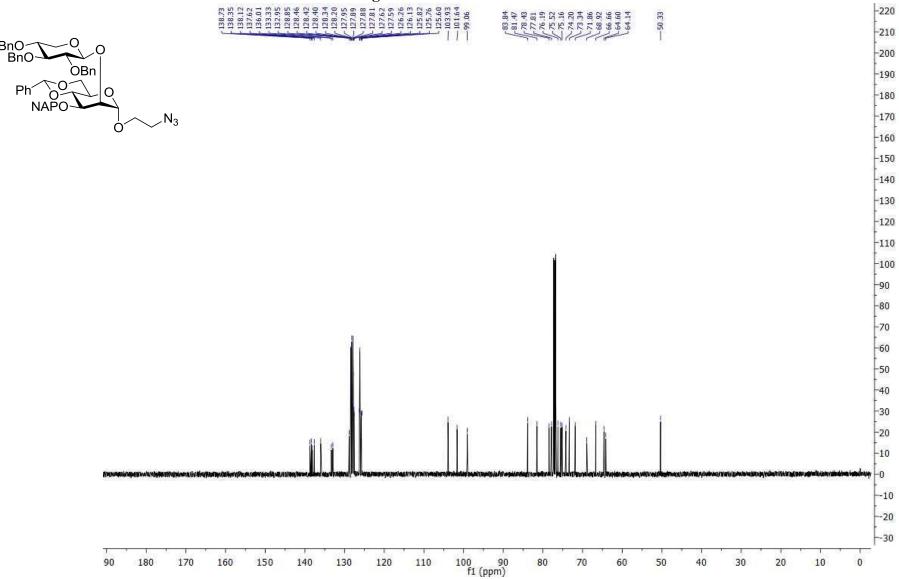


Fig 35: ¹H NMR of **21** at 25 °C

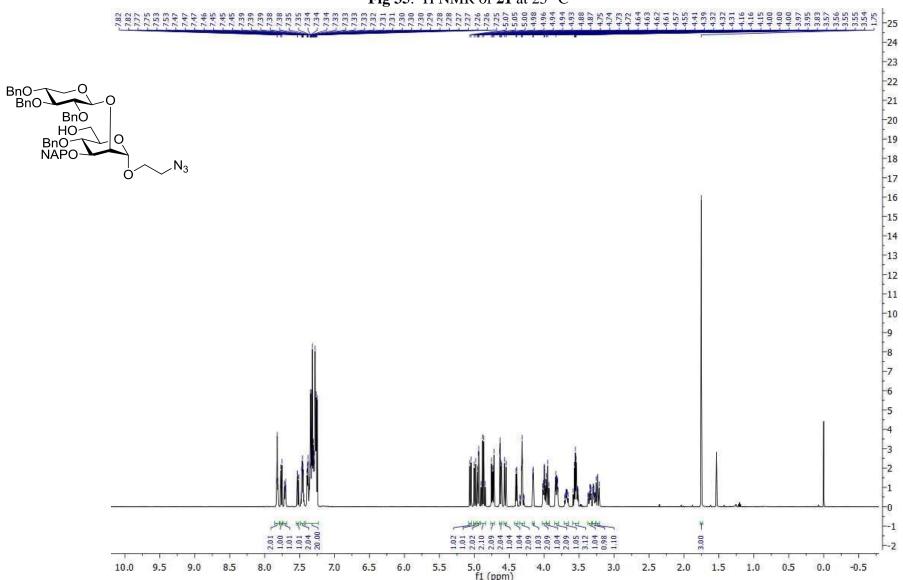


Fig 36: ¹³C NMR of **21** at 25 °C

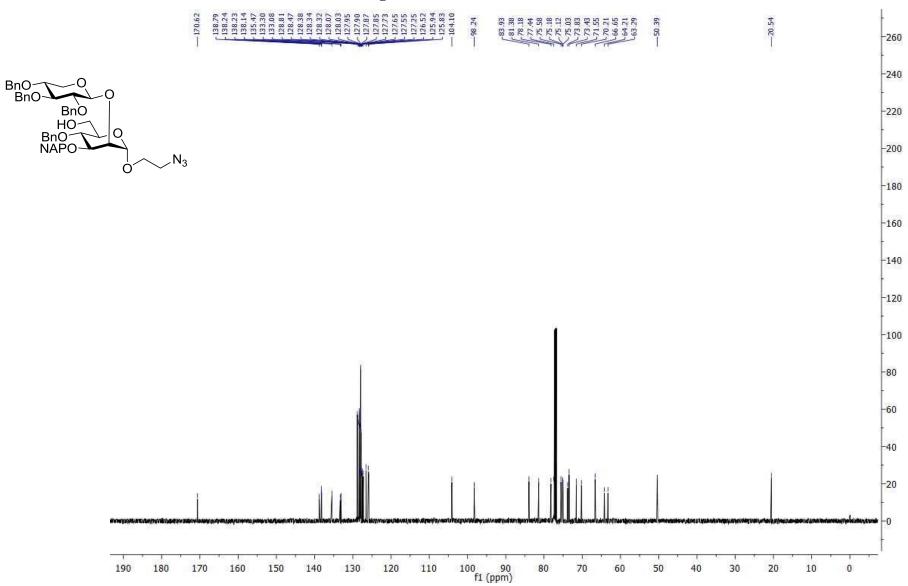


Fig 37: ¹H NMR of **22** at 25 °C

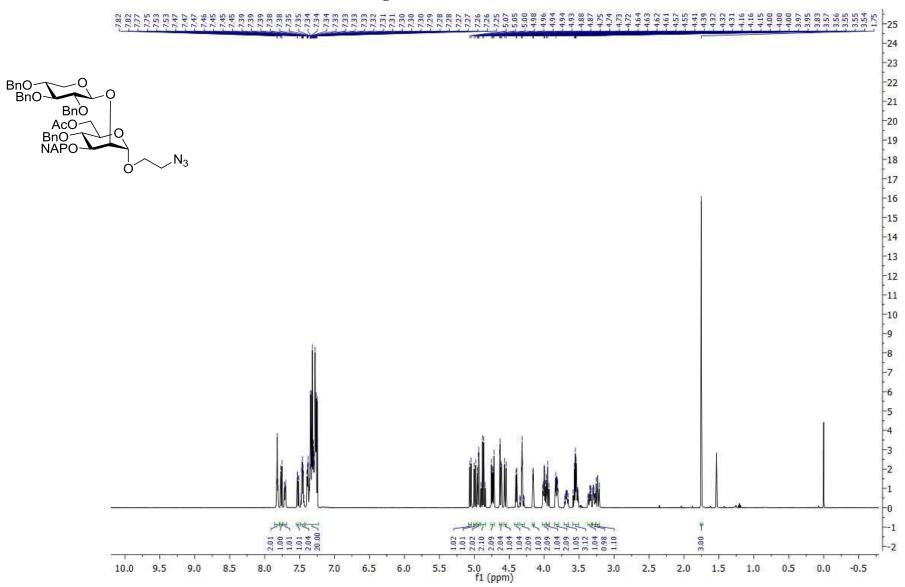


Fig 38: ¹³C NMR of **22** at 25 °C

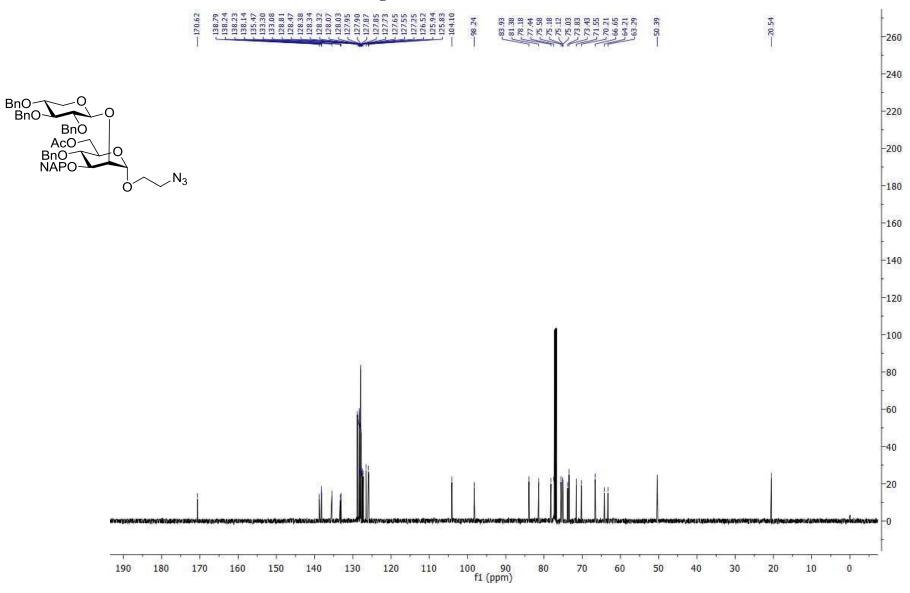


Fig 39: ¹H NMR of **23** at 25 °C

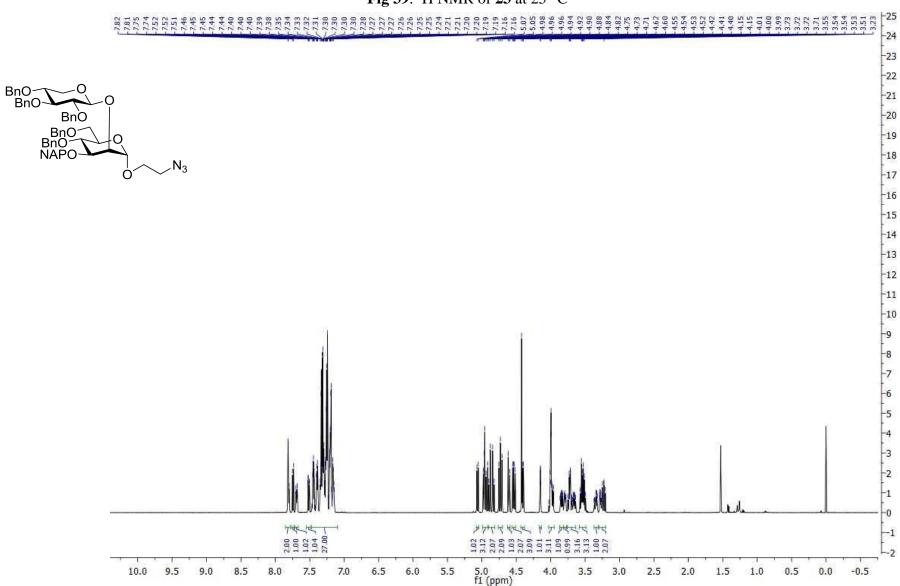


Fig 40: ¹³C NMR of **23** at 25 °C

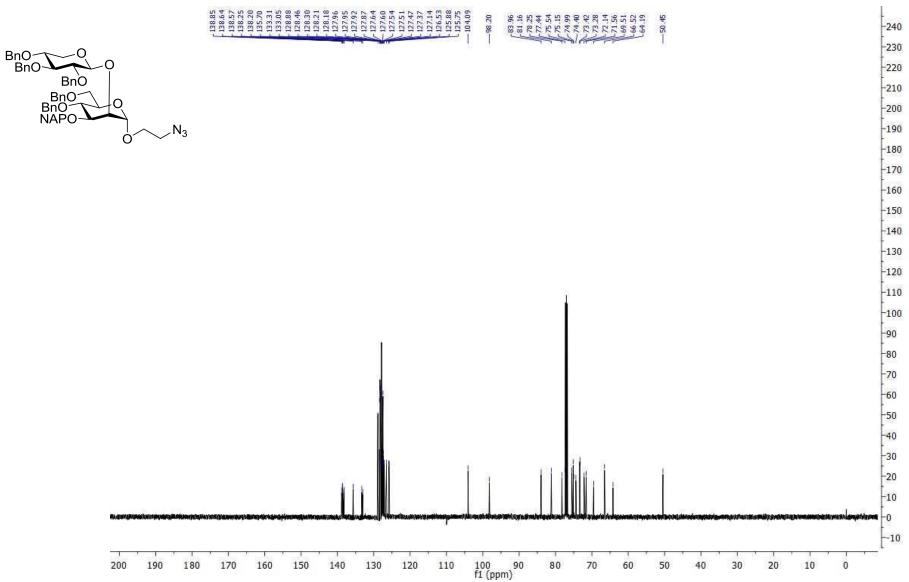
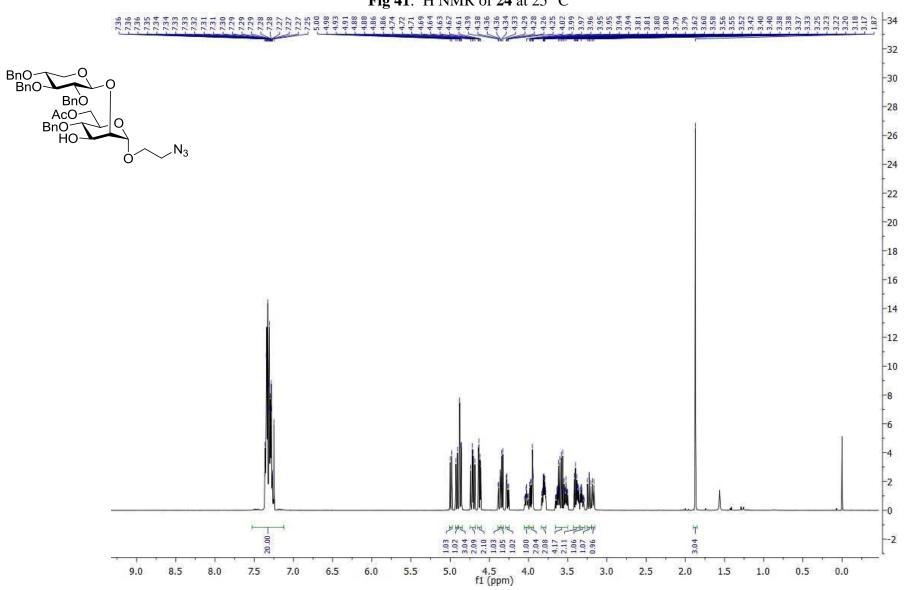


Fig 41: ¹H NMR of **24** at 25 °C



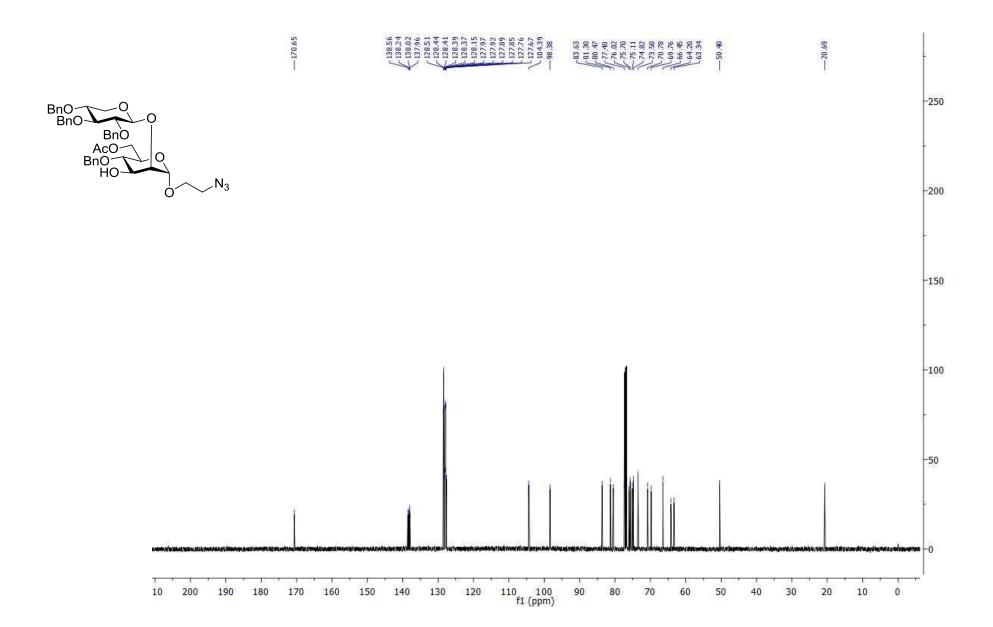


Fig 43: ¹H NMR of **26** at 25 °C

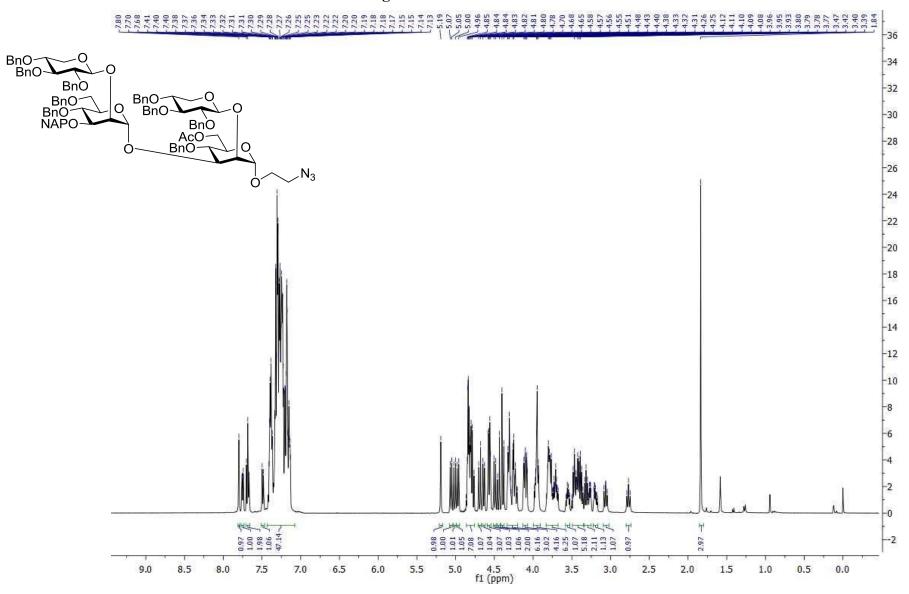


Fig 44: ¹³C NMR of **26** at 25 °C

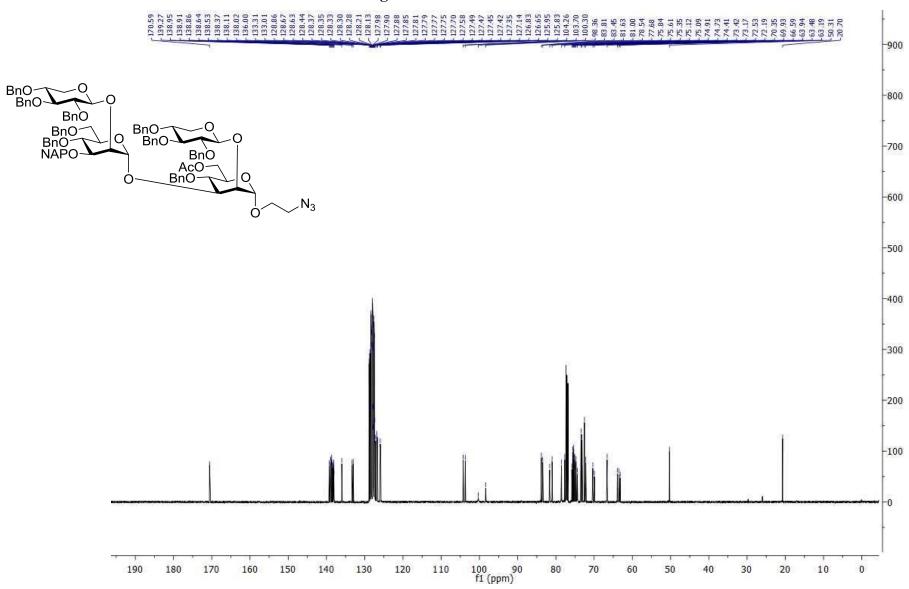


Fig 45: ¹H NMR of **27** at 25 °C

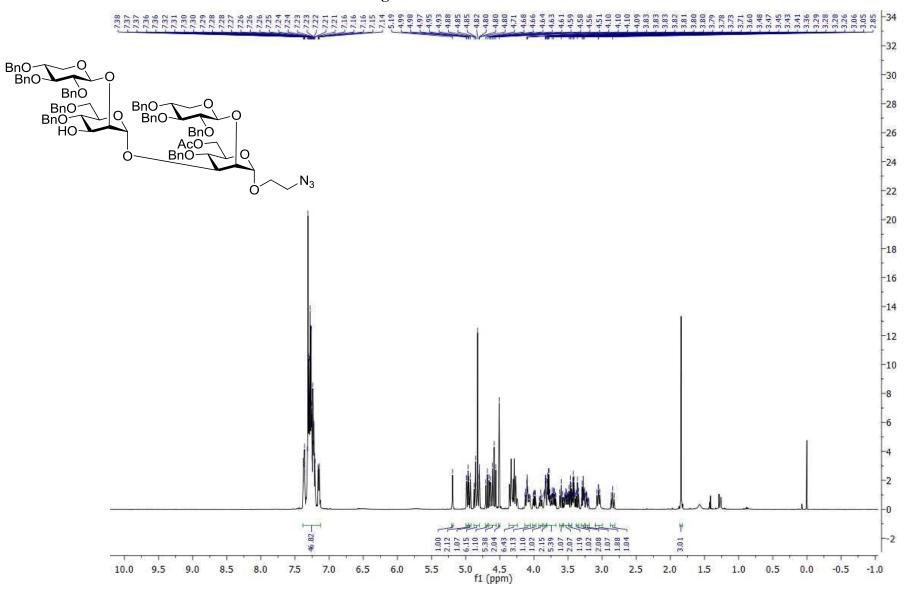


Fig 46: ¹³C NMR of **28** at 25 °C

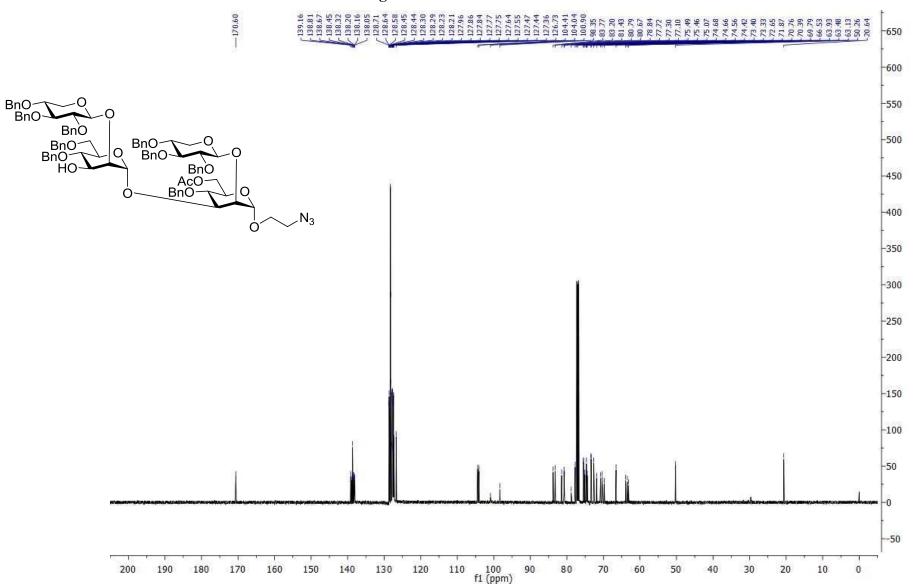


Fig 47: ¹H NMR of **28** at 25 °C

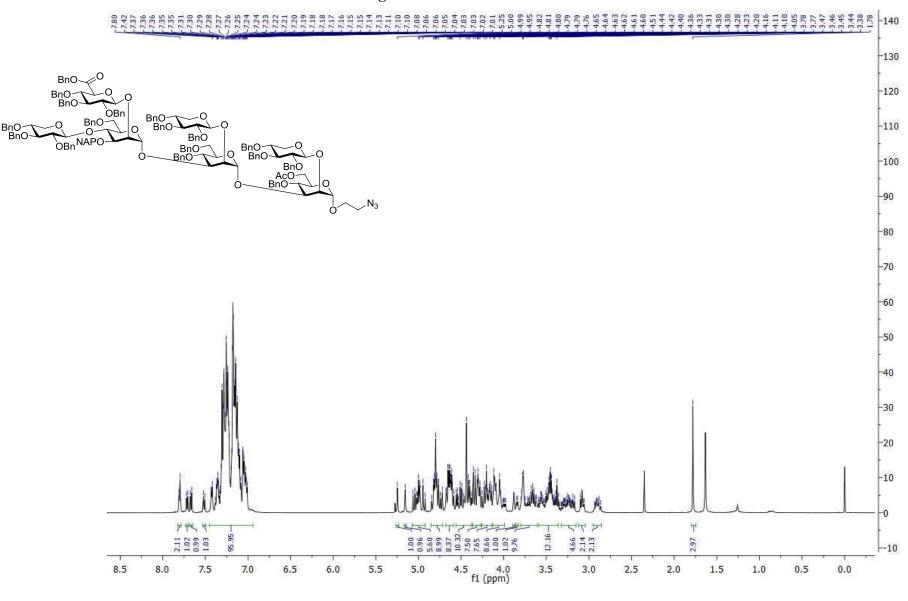


Fig 48: ¹³C NMR of **28** at 25 °C

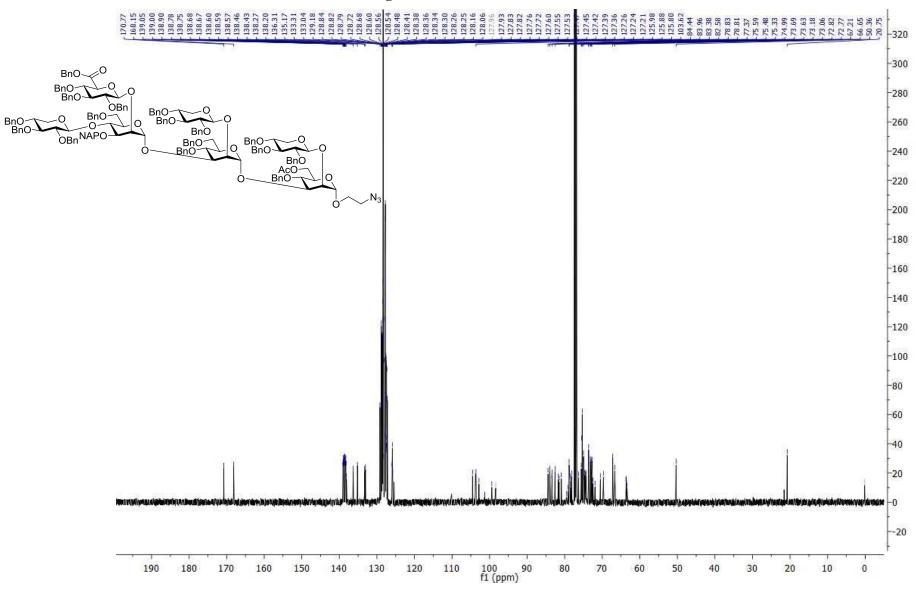


Fig 49: ¹H NMR of **29** at 25 °C

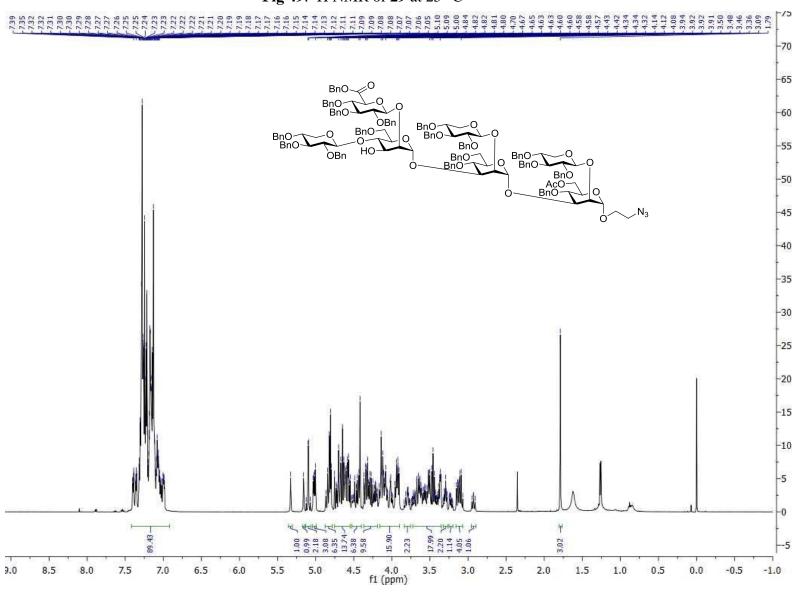


Fig 50: ¹³C NMR of **29** at 25 °C

